

REMARKS

Summary of the Amendment

Upon entry of the above amendment, claims 31, 33-38, 43, 50, 51, 71, 77 and 81-87 will have been amended. Accordingly, claims 31-87 will be pending with claims 31, 77 and 87 being in independent form.

Summary of the Official Action

In the instant Office Action, the Examiner rejected claims 31-87 over the art of record. By the present amendment and remarks, Applicant submits that the rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

Traversal of Rejection Under 35 U.S.C. § 102(b)

Applicant traverses the rejection of claims 31-47, 50-59, 62, 64-66 and 69-87 under 35 U.S.C. § 102(b) as being anticipated by US patent 5,377,428 to CLARK.

The Examiner asserts that CLARK fairly discloses all the features recited in these claims. Applicant respectfully traverses this rejection.

Applicant submits that CLARK fails to disclose the invention as defined by at least independent claims 31, 77 and 87 as amended. Notwithstanding the Office Action assertions

as to what each of these documents discloses, Applicant submits that CLARK lacks, inter alia, detecting data in each of the plurality of measurement zones using at least one measurement device that detects the data while moving along at least two degrees of freedom of movement, as recited in amended independent claim 31, and inter alia, each of the measurement devices detecting the data while moving along at least two degrees of freedom of movement, as recited in amended independent claims 77 and 87.

Applicant notes that CLARK apparently discloses a system that measures a web temperature with measurement devices 40 and 42, and that accounts for the machine speed. This is undertaken in an effort to regulate the moisture profile of the web with heating devices 16, 20, 22, 26 and 28, and is accomplished in an effort to reduce the amount of energy needed to dry the web. However, it is not apparent that this document discloses *detecting data in each of the plurality of measurement zones using at least one measurement device that detects the data while moving along at least two degrees of freedom of movement, and/or each of the measurement devices detecting the data while moving along at least two degrees of freedom of movement*. Accordingly, Applicant submits that this document cannot be said to disclose, or even suggest, the combination of features recited in claims 31, 77 and 87, as amended.

Applicant notes that, for an anticipation rejection under 35 U.S.C. § 102 to be proper, each element of the claim in question must be disclosed in a single document, and if the

document relied upon does not do so, then the rejection must be withdrawn.

Because this document fails to disclose at least the above mentioned features as recited in at least independent claims 31, 77 and 87, Applicant submits that this document does not disclose all the claimed features recited in at least amended independent claims 31, 77 and 87.

Furthermore, Applicant submits that dependent claims 32-47, 50-59, 62, 64-66, 69-76 and 78-86 are allowable at least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of CLARK discloses or suggests, in combination: that the material web is a paper web as recited in claim 32; that the at least one machine section is a drying section and wherein each of the plurality of measurement zones is arranged in different part section of the dryer section as recited in claim 33; that the detecting comprises detecting the data at each of the plurality of measurement zones at regular time intervals as recited in claim 34; that the detecting comprises detecting the data at at least three measurement zones as recited in claim 35; that the detecting comprises substantially simultaneously detecting the data at each of the plurality of measurement zones as recited in claim 36; that the at least one machine section comprises a plurality of part sections and wherein each of the plurality of measurement zones is arranged at least one of within different part section and between different part sections as

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recited in claim 37; that the at least one machine section comprises different machine sections and wherein the detecting comprises detecting the data in at least one part section of each of the different machine sections as recited in claim 38; that the method further comprises changing a machine setting of at least one machine component of the at least one machine section as recited in claim 39; that the method further comprises controlling or regulating a machine setting of at least one machine component of the at least one machine section as recited in claim 40; that the data relates to at least one of the at least one machine section, the material web and to an environment of the material web or the at least one machine section as recited in claim 41; that the data relates to the material web and comprises at least one of a moisture of the material web, a temperature of the material web, a thickness of the material web, and a weight per unit area of the material web as recited in claim 42; that the data relates to the at least one machine section and comprises a characteristic value of a surface of the at least one machine section as recited in claim 43; that the surface comprises a roll or cylinder surface and wherein the characteristic value comprises a temperature as recited in claim 44; that the at least one machine section comprises at least one of a steam system and a condensate system and wherein the data relates to a characteristic value of the steam system or condensate system as recited in claim 45; that the at least one machine section comprises a screen and wherein the data relates to a characteristic value of the screen as recited in claim 46; that the characteristic value comprises at least one of a temperature,

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a moisture content, and a permeability of the screen as recited in claim 47; that the detecting comprises detecting one type of data at one of the plurality of measurement zones and detecting another type of data at another of the plurality of measurement zones, the detecting occurring substantially uninterruptedly as recited in claim 50; that the detecting comprises detecting one type of data at one of the plurality of measurement zones and detecting another type of data at another of the plurality of measurement zones, the detecting occurring at regular time intervals as recited in claim 51; that the method further comprises supplying the data to an evaluation unit as recited in claim 52; that the method further comprises monitoring and/or influencing the manufacture or refinement of the material web using the evaluation unit as recited in claim 53; that the method further comprises continuously controlling and/or regulating the manufacture or refinement of the material web using the evaluation unit as recited in claim 54; that the at least one machine section comprises a plurality of machine components, the method further comprising independent controlling and/or regulating each of the plurality of machine components as recited in claim 55; that the method further comprises evaluating the data to effect changes in the manufacture or refinement of the material web as recited in claim 56; that the evaluating comprises determining at least one of a localized disturbance and a faulty machine component of the at least one machine section as recited in claim 57; that the evaluating comprises creating a model which describes the manufacture or refinement of the material web as recited in claim

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58; that the method further comprises storing the data regarding the manufacture or refinement of the material web as recited in claim 59; that the method further comprises evaluating the data at the other location to effect changes in the manufacture or refinement of the material web as recited in claim 62; that the method further comprises at least one of supporting the material web and guiding the material web, wherein the detecting comprises detecting the data in a region of the material web as recited in claim 64; that the method further comprises at least one of supporting the material web and guiding the material web on at least one of a screen, a cylinder and a roll, wherein the detecting comprises detecting the data in a region of the screen, the cylinder or the roll as recited in claim 65; that the method further comprises regulating or checking at least one of a longitudinal profile and a course of the material web as recited in claim 66; that the at least one machine section comprises a dryer section, the method further comprising regulating at least one component of the dryer section, wherein the at least one component comprises at least one of an individual dryer group, a dryer, and a humidifier as recited in claim 69; that the method may further comprise regulating a transverse moisture profile of the material web as recited in claim 70; that the regulating comprises step-wise regulating the transverse moisture profile of the material web as recited in claim 71; that the data relates to a measured humidity content and wherein regulating comprise step-wise regulating the transverse moisture profile of the material web based upon the measured humidity content as recited in claim 72; that

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the at least one machine section comprises a plurality of zone-wise regulatable dryers, the method further comprising regulating a transverse moisture profile of the material web as recited in claim 73; that the at least one machine section comprises a press section having at least one steam blow box, the method further comprising regulating a transverse moisture profile of the material web as recited in claim 74; that the method further comprises regulating a longitudinal moisture profile of the material web as recited in claim 75; that the data relates to a measured humidity content and wherein regulating comprise regulating the longitudinal moisture profile of the material web based upon the measured humidity content as recited in claim 76; that the data concerns at least one measured parameter that relates to the manufacture or refinement of the material web as recited in claim 78; that the material web is a paper web as recited in claim 79; that the at least one machine section is a drying section as recited in claim 80; that each of the plurality of measurement zones are arranged in different part sections of the at least one machine section as recited in claim 81; that at least three measurement zones of the plurality of measurement zones comprise at least one measurement device as recited in claim 82; that at least one of the measurement devices is rotatable and movable in the process direction and transverse to the process direction as recited in claim 83; that at least one of the measurement devices is rotatably movable and linearly movable as recited in claim 84; that at least one of the measurement devices is capable of detecting the data at a plurality of measurement locations as recited in claim 85;

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and that at least one of the measurement devices is movable in a direction which is approximately perpendicular to the process direction as recited in claim 86.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

Traversal of Rejections Under 35 U.S.C. § 103(a)

Applicant traverses the rejection of claims 48 and 49 under 35 U.S.C. § 103(a) as being unpatentable over CLARK in view of US patent 4,614,044 to FIEDLER et al.

Applicant also traverses the rejection of claims 60 and 61 under 35 U.S.C. § 103(a) as being unpatentable over CLARK in view of US patent 6,024,835 to FIORE et al.

Applicant additionally traverses the rejection of claim 63 under 35 U.S.C. § 103(a) as being unpatentable over CLARK in view of US patent 6,171,642 to KUSTERMANN.

Applicant also additionally traverses the rejection of claims 67 and 68 under 35 U.S.C. § 103(a) as being unpatentable over CLARK in view of US patent 6,099,620 to ARNO et al.

The Examiner acknowledges that CLARK lacks any disclosure with regard to collecting environmental data such as air temperature, transmitting data to another location by way of the Internet, detecting data using reflection measurement, and regulating or checking a heating curve. However, the Examiner asserted that FIEDLER discloses

collecting air temperature, that FIORE discloses communicating with global data, that KUSTERMANN detects data using reflection measurement, and that ARNO discloses using a heating curve in a process control environment. Finally, the Examiner concluded that it would have been obvious to modify CLARK in view of the teachings of the secondary references. Applicant respectfully traverses these assertions and the rejections.

As a preliminary matter, Applicant submits that the above-noted rejection of claim 63 over KUSTERMANN is improper because KUSTERMANN is not prior art with respect to Applicant's invention.

Applicant submits that KUSTERMANN cannot be used as a basis for rejection under 35 U.S.C. 103(a). Under 35 U.S.C. section 103(c), a 35 U.S.C. 102(e) prior art document cannot form the basis of a 35 U.S.C. 103 rejection if that document is assigned to the same owner or assignee as that of the instant application, provided the application was filed after November 29, 1999. Accordingly, as this application was filed in the US on September 14, 2001 (i.e., after 11-29-99) and as both this application and KUSTERMANN were commonly owned, i.e., by Voith Paper Patent GmbH, on September 14, 2001, this rejection is believed improper.

For the record, it has been confirmed to Applicant's representative that on September 14, 2001 (i.e., the filing date of the instant application) both the instant invention and the invention claimed in US patent 6,171,642 to KUSTERMANN, were either owned by the

same entity or were subject to an obligation of assignment to the same entity.

However, in the event that the Examiner may wish to reformulate a new rejection which is instead based upon DE 198 01 140 (the published priority document cited in KUSTERMANN), Applicant is attaching hereto a copy of this document for the Examiner's review and consideration, in the event that the Examiner is unable to obtain copies of the same.

Furthermore, notwithstanding the Office Action assertions as to what each of these documents disclose or suggest, Applicant submits that no proper modification or combination of the above-noted documents discloses or suggests, *inter alia*, *detecting data in each of the plurality of measurement zones using at least one measurement device that detects the data while moving along at least two degrees of freedom of movement*, as recited in amended independent claim 31.

As discussed above, CLARK apparently discloses a system that measures a web temperature with measurement devices 40 and 42, and that accounts for the machine speed. This is undertaken in an effort to regulate the moisture profile of the web with heating devices 16, 20, 22, 26 and 28, and is accomplished in an effort to reduce the amount of energy needed to dry the web. However, it is not apparent that this document discloses *detecting data in each of the plurality of measurement zones using at least one measurement device that detects the data while moving along at least two degrees of freedom of movement*.

Applicant acknowledges that FIEDLER relates to a system for optimizing thermal treatment of fabrics (see Abstract) and apparently discloses a system that measures air temperature with measurement devices 6. However, it is not apparent that this document discloses *detecting data in each of the plurality of measurement zones using at least one measurement device that detects the data while moving along at least two degrees of freedom of movement.*

Applicant also notes that FIORE relates to a quality control system for a paper mill (see Abstract) and apparently discloses a system that receives information from a plurality of locations of a paper mill and distributes that information to various locations (see e.g., col. 4, lines 51-57). However, it is not apparent that this document discloses *detecting data in each of the plurality of measurement zones using at least one measurement device that detects the data while moving along at least two degrees of freedom of movement.*

Applicant further notes that KUSTERMANN relates to a system for regulating the coating of a medium on a web (see Abstract) and apparently discloses a system that uses measurement devices that use reflection measurements (see e.g., col. 9, lines 8-10). However, it is not apparent that this document discloses *detecting data in each of the plurality of measurement zones using at least one measurement device that detects the data while moving along at least two degrees of freedom of movement.*

Applicant additionally notes that ARNO relates to a system for removing moisture

from an air dryer (see Abstract) and apparently discloses an air dryer and the use of a heating curve (see e.g., col. 1, lines 11-14 and col. 6, lines 9-10). However, it is clear that this document fails to disclose or suggest *detecting data in each of the plurality of measurement zones using at least one measurement device that detects the data while moving along at least two degrees of freedom of movement.*

On the other hand, the invention relates to a method of operating a machine for manufacturing and/or refining a material web wherein the machine includes at least one machine section, wherein the method comprises arranging a plurality of measurement zones in series along a process direction and detecting data in each of the plurality of measurement zones using at least one measurement device that detects the data while moving along at least two degrees of freedom of movement, wherein the data concerns at least one measured parameter relating to the manufacture or refinement of the material web. This combination of features is clearly not taught by any of the above-noted combination of documents.

Because each of the applied documents fails to disclose or suggest at least the above-noted features of the instant invention, Applicant submits that no proper modification of either of these documents can render unpatentable the combination of features recited in at least independent claim 31.

Further, even assuming, *arguendo*, that it would have been obvious to combine these documents, (which Applicant submits it would not be), Applicant notes that such a

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combination would nevertheless fail to result in a method that includes the particular combination of features recited in amended claim 31. Moreover, Applicant submits that there is no motivation to modify any of these documents in a manner which would render obvious Applicant's invention.

Applicant reminds the Examiner of the guidelines identified in M.P.E.P section 2141 which state that "[i]n determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

As this section clearly indicates, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)."

Moreover, it has been legally established that "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430

(Fed. Cir. 1990) Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope not suggested by combination of prior art references).

Additionally, it has been held that "[a] statement that modifications of the prior art to meet the claimed invention would have been `` well within the ordinary skill of the art at the time the claimed invention was made'' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)."

Thus, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify the applied reference in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify this document, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 31 is not rendered obvious by any reasonable inspection and interpretation of the disclosure of the applied references.

Further, Applicant submits that claims 48, 49, 60, 61, 63, 67 and 68 are allowable at

least for the reason that these claims depend from an allowable base claim and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper modification of CLARK, FIEDLER, FIORE, KUSTERMANN and ARNO discloses or suggests, in combination: that the data relates to at least one a characteristic value of an environment of the at least one machine section as recited in claim 48; that the characteristic value of the environment comprises at least one of an air temperature, an air moisture content, an airflow speed, and an airflow direction as recited in claim 49; that the method further comprises transmitting the data regarding the manufacture or refinement of the material web to another location as recited in claim 60; that the transmitting comprises transmitting the data via the Internet as recited in claim 61; that the detecting comprises detecting data using reflection measurement as recited in claim 63; that the at least one machine section comprises a dryer section, the method further comprising regulating or checking at least one of a heating curve of the dryer section as recited in claim 67; and that the at least one machine section comprises a dryer section, the method further comprising continuously regulating or checking at least one of a heating curve of the dryer section as recited in claim 68.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the rejection of these claims under 35 U.S.C. § 103(a) and indicate that these claims are allowable.

Thus, Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 102 and 103, and respectfully requests the Examiner to indicate allowance of each and every pending claim of the present invention.

CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of the pending claims. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

The Commissioner is hereby authorized to refund excess payments and charge any additional fee necessary to have this paper entered to Deposit Account No. 19-0089.

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Should there be any questions, the Examiner is invited to contact the undersigned at the below listed number.

Respectfully submitted,
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